

Listing of Claims

This listing of claims replaces all prior versions of the claims of this application.

1. (Canceled)

2. (New) An athletic shoe sole for supporting a foot of an intended wearer, the shoe sole comprising:

a sole inner surface;

a sole outer surface;

the sole surfaces of the athletic shoe together defining a sole medial side, a sole lateral side, and a sole middle portion between the sole sides;

the sole having a heel portion at a location substantially corresponding to a heel of the intended wearer's foot, a forefoot portion at a location substantially corresponding to a forefoot of the intended wearer's foot, and a third portion between the heel and forefoot portions;

the heel portion having a lateral heel part at a location substantially corresponding to the lateral tuberosity of the calcaneus of the intended wearer's foot, and a medial heel part at a location substantially corresponding to the base of the calcaneus of the intended wearer's foot;

the third portion having a lateral midtarsal part at a location substantially corresponding to the base of a fifth metatarsal of the intended wearer's foot, and a main longitudinal arch part at a location substantially corresponding to the longitudinal arch of the intended wearer's foot;

the forefoot portion having a forward medial forefoot part at a location substantially corresponding to the head of the first distal phalange of the intended wearer's foot, and rear medial and lateral forefoot parts at locations substantially corresponding to the heads of the medial and lateral metatarsals of the intended wearer's foot;

an outer sole;

at least two rounded portions, each formed by midsole component, each said rounded midsole portion being located between a convexly rounded portion of an inner surface of the

midsole component and a concavely rounded portion of an outer surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition, the convexity of the convexly rounded portion of the inner surface of the midsole component existing with respect to a section of the midsole component located adjacent to the convexly rounded inner surface portion, and the concavity of the concavely rounded portion of the outer surface of the midsole component existing with respect to an inner section of the midsole component located adjacent to the concavely rounded outer surface portion;

each of said rounded midsole portions being located at a different position on the sole, the different positions comprising positions near to at least one of the medial heel part, lateral heel part, forward medial forefoot part, rear medial forefoot part, rear lateral forefoot part, lateral midtarsal part, and main longitudinal arch part;

wherein each of said rounded midsole portions of the shoe sole has a substantially uniform thickness extending from a location proximate to a sidemost extent of the shoe sole side to a lowest point on said sole side, as viewed in a frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

at least two tapered portions having a thickness that decreases gradually from a first thickness to a lesser thickness, as viewed in a shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition, said thickness of each of said tapered portions being measured from the inner surface of the midsole component to the outer surface of the shoe sole, and each of said tapered portions being located at a location on the shoe sole corresponding to a location of each of the rounded midsole portions;

the sole having a lateral sidemost section being located at a location outside of a straight vertical line extending through the shoe sole at a lateral sidemost extent of the inner surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

the sole having a medial sidemost section being located at a location outside of a straight vertical line extending through the shoe sole at a medial sidemost extent of the inner surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

a midsole part extends into the sidemost section of the sole side at the location of each of said rounded midsole portions, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

each said midsole part further extends to above a level corresponding to the lowest point of the midsole component inner surface of the same sole side, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition; and

said shoe sole has a heel portion thickness that is greater than a forefoot portion thickness, as viewed in a shoe sole sagittal plane cross-section when the shoe sole is upright and in an unloaded condition.

3. (New) The shoe sole of claim 2, wherein the shoe sole comprises at least three said rounded midsole portions.

4. (New) The shoe sole of claim 2, wherein the shoe sole comprises at least four said rounded midsole portions.

5. (New) The shoe sole of claim 2, wherein the shoe sole comprises at least five said rounded midsole portions.

6. (New) The shoe sole of claim 2, wherein the shoe sole comprises at least six said rounded midsole portions.

7. (New) The shoe sole of claim 2, wherein the shoe sole comprises at least seven said rounded midsole portions.

8. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the lateral midtarsal part.

9. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the main longitudinal arch part.

10. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the medial heel part.

11. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the rear medial forefoot part.

12. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the rear lateral forefoot part.

13. (New) The shoe sole of claim 2, wherein one rounded midsole portion is located at the lateral heel part.

14. (New) The shoe sole of claim 2, wherein one said rounded midsole portion is located at the forward medial forefoot part.

15. (New) The shoe sole of claim 2, comprising at least three rounded midsole portions, each of which rounded midsole portions is located in the forefoot portion of the shoe sole.

16. (New) The shoe sole of claim 2, wherein said at least two rounded midsole portions are located at the rear medial forefoot part and the rear lateral forefoot part.

17. (New) The shoe sole of claim 2, wherein said at least two rounded midsole portions are located at the rear medial forefoot part and the forward medial forefoot part.

18. (New) The shoe sole of claim 2, wherein at least part of the outer surface of each said tapered portion is concavely rounded, as viewed in the shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition, the concavity existing with respect to an inner section of the shoe sole located adjacent to the concavely rounded outer surface of the tapered portion of the shoe sole.

19. (New) The shoe sole of claim 2, wherein the shoe sole further comprises, at the location of each said rounded midsole portion, a second tapered portion having a thickness that decreases gradually from a first thickness to a lesser thickness, as viewed in a shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition.

20. (New) The shoe sole of claim 19, wherein at least part of the outer surface of each said second tapered portion is concavely rounded, the concavity being determined relative to an inner section of the tapered portion adjacent to the concavely rounded outer surface portion of each said second tapered portion, as viewed in a shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition.

21. (New) An athletic shoe sole for supporting a foot of an intended wearer, the shoe sole comprising:

a sole inner surface;

a sole outer surface;

the sole surfaces of the athletic shoe together defining a sole medial side, a sole lateral side, and a sole middle portion between the sole sides;

the sole having a heel portion at a location substantially corresponding to a heel of the intended wearer's foot, a forefoot portion at a location substantially corresponding to a forefoot of the intended wearer's foot, and a third portion between the heel and forefoot portions;

the heel portion having a lateral heel part at a location substantially corresponding to the lateral tuberosity of the calcaneus of the intended wearer's foot, and a medial heel part at a location substantially corresponding to the base of the calcaneus of the intended wearer's foot;

the third portion having a lateral midtarsal part at a location substantially corresponding to the base of a fifth metatarsal of the intended wearer's foot, and a main longitudinal arch part at a location substantially corresponding to the longitudinal arch of the intended wearer's foot;

the forefoot portion having a forward medial forefoot part at a location substantially corresponding to the head of the first distal phalange of the intended wearer's foot, and rear medial and lateral forefoot parts at locations substantially corresponding to the heads of the medial and lateral metatarsals of the intended wearer's foot;

an outer sole;

at least two rounded portions, each formed by midsole component, each said rounded midsole portion being located between a convexly rounded portion of an inner surface of the midsole component and a concavely rounded portion of an outer surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition, the convexity of the convexly rounded portion of the inner surface of the midsole component existing with respect to a section of the midsole component located adjacent to the convexly rounded inner surface portion, and the concavity of the concavely rounded portion of the outer surface of the midsole component existing with respect to an inner section of the midsole component located adjacent to the concavely rounded outer surface

portion;

each of said rounded midsole portions being located at a different position on the sole, the different positions comprising positions near to at least one of the medial heel part, lateral heel part, forward medial forefoot part, rear medial forefoot part, rear lateral forefoot part, lateral midtarsal part, and main longitudinal arch part;

wherein each of said rounded midsole portions of the shoe sole has a substantially uniform thickness extending from a height of a lowest point of the inner surface of the midsole component to a lowest point on said sole side, as viewed in a frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

at least two tapered portions having a thickness that decreases gradually from a first thickness to a lesser thickness, as viewed in a shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition, said thickness of each of said tapered portions being measured from the inner surface of the midsole component to the outer surface of the shoe sole, and each of said tapered portions being located at a location on the shoe sole corresponding to a location of each of the rounded midsole portions;

the sole having a lateral sidemost section being located at a location outside of a straight vertical line extending through the shoe sole at a lateral sidemost extent of the inner surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

the sole having a medial sidemost section being located at a location outside of a straight vertical line extending through the shoe sole at a medial sidemost extent of the inner surface of the midsole component, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

a midsole part extends into the sidemost section of the sole side at the location of each of said rounded midsole portions, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

each said midsole part further extends to above a level corresponding to the lowest point of the midsole component inner surface of the same sole side, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition; and

said shoe sole has a heel portion thickness that is greater than a forefoot portion thickness, as viewed in a shoe sole sagittal plane cross-section when the shoe sole is upright and in an unloaded condition.

22. (New) An athletic shoe sole for supporting a foot of an intended wearer, the shoe sole comprising:

- a sole inner surface;

- a sole outer surface;

- the sole surfaces of the athletic shoe together defining a sole medial side, a sole lateral side, and a sole middle portion between the sole sides;

- the sole having a heel portion at a location substantially corresponding to a heel of the intended wearer's foot, a forefoot portion at a location substantially corresponding to a forefoot of the intended wearer's foot, and a third portion between the heel and forefoot portions;

- the heel portion having a lateral heel part at a location substantially corresponding to the lateral tuberosity of the calcaneus of the intended wearer's foot, and a medial heel part at a location substantially corresponding to the base of the calcaneus of the intended wearer's foot;

- the third portion having a lateral midtarsal part at a location substantially corresponding to the base of a fifth metatarsal of the intended wearer's foot, and a main longitudinal arch part at a location substantially corresponding to the longitudinal arch of the intended wearer's foot;

- the forefoot portion having a forward medial forefoot part at a location substantially corresponding to the head of the first distal phalange of the intended wearer's foot, and rear medial and lateral forefoot parts at locations substantially corresponding to the heads of the medial and lateral metatarsals of the intended wearer's foot;

at least two rounded portions, each said rounded portion being located between a convexly rounded portion of an inner surface of the shoe sole and a concavely rounded portion of an outer surface of the shoe sole, as viewed in a shoe sole frontal plane cross-section when the shoe sole is upright and in an unloaded condition, the convexity of the convexly rounded portion of the inner surface of the shoe sole existing with respect to a section of the shoe sole located adjacent to the convexly rounded inner surface portion, and the concavity of the concavely rounded portion of the outer surface of the shoe sole existing with respect to an inner section of the shoe sole located adjacent to the concavely rounded outer surface portion;

each of said rounded portions being located at a different position on the sole, the different positions comprising positions near to at least one of the medial heel part, lateral heel part, forward medial forefoot part, rear medial forefoot part, rear lateral forefoot part, lateral midtarsal part, and main longitudinal arch part;

wherein each of said rounded portions of the shoe sole has a substantially uniform thickness extending from a location proximate to a sidemost extent of the shoe sole side to a lowest point on said sole side, as viewed in a frontal plane cross-section when the shoe sole is upright and in an unloaded condition;

at least two tapered portions having a thickness that decreases gradually from a first thickness to a lesser thickness, as viewed in a shoe sole horizontal plane when the shoe sole is upright and in an unloaded condition, said thickness of each of said tapered portions being measured from the inner surface of the shoe sole to the outer surface of the shoe sole, and each of said tapered portions being located at a location on the shoe sole corresponding to a location of each of the rounded portions; and

said shoe sole has a heel portion thickness that is greater than a forefoot portion thickness, as viewed in a shoe sole sagittal plane cross-section when the shoe sole is upright and in an unloaded condition.